

REMARKS

Applicant has carefully reviewed the Final Office Action mailed June 11, 2009, and the Advisory Action mailed October 28, 2009, and offers the following remarks to accompany the above amendments. Applicant concurrently files a Request for Continued Examination.

Claims 1, 2, 4-23, and 25-42 remain pending. Claims 1 and 22 have been amended to clarify that the temporary directory number that is used to initiate the transition of the call from being connected through the wireline network to the call being connected to the cellular wireless network is provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal. Claims 2, 4, 7-9, 11, 21, 23, 25-27, 29, and 40-42 have been amended in a similar fashion.

Claims 1-8, 11-16, 18, 19, 21-23, 25, 26, 29-34, 36, 37, 39, and 40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0134650 A1 to Sundar et al. (hereinafter “Sundar”) in view of U.S. Patent No. 5,901,359 to Malmstrom (hereinafter “Malmstrom”). Applicant respectfully traverses. Claim 3 was previously cancelled thereby rendering the rejection of this claim moot.

When rejecting a claim under § 103, the Patent Office must either show that the prior art references teach or suggest all limitations of the claim or explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art. *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418, 82 U.S.P.Q.2d (BNA) 1385 (2007). The gap between the prior art and the claimed invention may not be “so great as to render the [claim] nonobvious to one reasonably skilled in the art.” *Dann v. Johnston*, 425 U.S. 219, 230, 189 U.S.P.Q. (BNA) 257, 261 (1976). In this case, the Patent Office has failed to show where each and every limitation of the claims is taught or suggested by the prior art. Further, for those limitations of the claims that are not taught or suggested by the prior art, the Patent Office has failed to explain why those limitations would have been obvious to one of ordinary skill in the art.

Claims 1 and 22 as amended both recite that the primary directory number initially used to establish a call is associated with the wireline network and that the temporary directory number used to initiate a transition of the first call when the mobile terminal is detected to be moving out of the local wireless communication zone is a temporary directory number that is provided by a visited wireless switch currently providing cellular wireless access for the mobile

terminal. The combination of Sundar and Malmstrom does not teach this limitation. Thus, the invention as claimed is patentable.

The combination of Sundar and Malmstrom does not teach or suggest a control system cooperating with the wireline network interface and the local wireless interface and adapted to “initiate a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal**,” as recited in claim 1. Sundar discloses a handoff of a mobile station as it roams during a call from a wireless local area network (WLAN) to a wireless wide area network (WWAN) environment (Sundar, paragraph 0096). The Patent Office is reading the WLAN of Sundar as the wireline network and the WWAN of Sundar as the wireless network (Final Office Action mailed June 11, 2009, p. 4). However, in Sundar, the transition of the call from the WLAN to the WWAN environment is not initiated using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal**, as recited in claim 1. Instead, in Sundar, when the mobile station determines that a handoff is imminent, “mobile station 310 requests 3004 the **WLAN switch 302** to issue it a Temporary Local Directory Number (TLDN)” (Sundar, paragraph 0096, emphasis added). The WLAN switch 302 of Sundar is providing access through the WLAN (see Sundar, paragraph 0093, where 302 is referred to as the Serving WLAN MSC 302). Thus, in Sundar, the WLAN switch 302 is not a visited wireless switch **currently providing cellular wireless access** (i.e., access through the WWAN) for the mobile terminal, as recited by the claimed invention. The WLAN switch 302 in Sundar is not a visited wireless switch currently providing **cellular wireless** access through the **cellular wireless network** (WWAN) for the mobile terminal. Instead, the WLAN switch 302 in Sundar is providing access through the WLAN. Accordingly, Sundar does not teach or suggest initiating a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal**, as recited in claim 1.

To the extent that the Patent Office is reading the WLAN as the “cellular wireless network” of the claim and the WLAN switch 302 as the visited wireless switch currently providing cellular wireless access, as set forth on page 2 of the Final Office Action mailed June 11, 2009, then Sundar does not teach or suggest using “the primary directory number associated with the wireline network to establish through the wireline network a first call,” as recited in part i) of step c) of claim 1. The Patent Office has equated the WLAN as the wireline network (Final Office Action mailed June 11, 2009, p. 4). If the WLAN is alleged to be the wireline network, then the WLAN switch 302 in Sundar, which is supporting the call while it is in the WLAN, cannot be “a visited wireless switch currently providing cellular wireless access for the mobile terminal,” and Sundar does not teach or suggest a control system cooperating with the wireline network interface and the local wireless interface and adapted to “initiate a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal**,” as recited in claim 1. If the WLAN switch 302 of Sundar is attempted to be read as a visited wireless switch currently providing cellular wireless access, then Sundar does not teach or suggest using “the primary directory number associated with the wireline network to establish through the wireline network a first call,” as recited in part i) of step c) of claim 1. The WLAN in Sundar cannot be both the wireline and cellular wireless networks of the claimed invention.

In summary, the WLAN switch 302 in Sundar acts as a MSC for the WLAN (on the PBX side) (Sundar, Abstract). When a handoff is necessary, the WLAN switch 302 issues a TLDN to the mobile terminal. The mobile terminal then turns on its WWAN mode and places a second call using the TLDN, and then the two calls are connected so that the call can be supported by the WWAN (Sundar, paragraph 0096). The problem with the approach in Sundar is that the TLDN is provided while the WLAN signal is waning (Sundar, paragraph 0096), and the TLDN may not be communicated in time for the second call to be made and the two calls connected. In contrast, in the claimed invention, when the mobile terminal is detected to be moving out of the local wireless zone, where the call may no longer be supported through the wireline network, the temporary directory number is provided by a visited wireless switch that is currently providing cellular wireless access to the cellular wireless network for the mobile terminal. Thus, since the

temporary directory number in the claimed invention is provided by the visited wireless switch currently providing cellular wireless access to the cellular wireless network, the temporary directory number is provided by a visited wireless switch that is more likely to have enough signal to be able to send the temporary directory number to the mobile terminal. Sundar does not teach using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal** to initiate a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network, as recited in the claimed invention.

Malmstrom also does not teach or suggest the limitations missing from Sundar. Malmstrom discloses a temporary directory number (see Malmstrom, col. 11, lines 5-28), but the temporary directory number is not used to initiate a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network. Thus, the combination of Sundar and Malmstrom fails to teach or suggest a control system cooperating with the wireline network interface and the local wireless interface and adapted to “initiate a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal**,” as recited in claim 1. Claim 1 is therefore patentable.

Independent claim 22 recites similar limitations as the limitations of claim 1 and is thus patentable for at least the same reasons set forth above with respect to claim 1.

Claims 2, 4-8, 11-16, 18, 19, and 21, depend from claim 1 and include all of the limitations of claim 1, and are thus not obvious for at least the same reasons. Claims 23, 25, 26, 29-34, 36, 37, 39, and 40, depend from claim 22 and include all of the limitations of claim 22, and also are not obvious for at least the same reasons.

The distinctions between the claimed invention and the combination of Sundar and Malmstrom are highlighted when looking at claims 2 and 23. Claims 2 and 23 as amended recite “wherein the mobile terminal is registered with the **cellular wireless network** while the first call is established **and the temporary directory number is assigned to the mobile terminal by the**

visited wireless switch upon registration.” Sundar does not teach this limitation, and neither does Malmstrom. In Sundar, the mobile station requests the TLDN from the WLAN switch and receives it before the mobile terminal ever registers in the WWAN environment (Sundar, paragraph 0096, “mobile station 310 requests 3004 the WLAN switch 302 to issue it a Temporary Local Directory Number (TLDN)...Having received the TLDN the mobile station 310 continues roaming and...upon sensing the WWAN environment and upon successful completion of registration in the WWAN environment, requests a call to be placed using the TLDN as the destination (called party).”). Thus, since the mobile station in Sundar receives the TLDN **prior to** registration in the WWAN, Sundar does not teach or suggest that the temporary directory number is assigned to the mobile terminal by the visited wireless switch **upon registration** of the mobile terminal with the cellular wireless network, as recited in claims 2 and 23. Malmstrom also does not teach this limitation. Accordingly, claims 2 and 23 are patentable over the combination of Sundar and Malmstrom for this additional reason.

The Patent Office argues that paragraph 0102 of Sundar teaches the limitations of claims 2 and 23 (Final Office Action mailed June 11, 2009, p. 3). In particular, the Patent Office is arguing that the use of the TLDN during call set up reads on the limitation “upon registration.” *Ibid.* Applicant respectfully disagrees. “Call set up” is not the same thing as registration. Moreover, claims 2 and 23 recite “wherein the mobile terminal is registered with the **cellular wireless** network while the first call is established **and the temporary directory number is assigned to the mobile terminal by the visited wireless switch upon registration.**” In claims 2 and 23, registration of the mobile terminal with the cellular wireless network occurs while the first call is established (*i.e.*, during the first call) and the temporary directory number is assigned to the mobile terminal upon registration. In contrast, in Sundar, the TLDN is provided by the WLAN switch 302 during the call set up, not upon registration during the call. The TLDN in Sundar is not assigned when the mobile terminal registers with the cellular wireless network (WWAN). As discussed above, in Sundar, the mobile station receives the TLDN prior to registration in the WWAN (Sundar, paragraph 0096). For these reasons, Sundar does not teach or suggest “wherein the mobile terminal is registered with the **cellular wireless network** while the first call is established **and the temporary directory number is assigned to the mobile terminal by the visited wireless switch upon registration,**” as recited in claims 2 and 23.

Malmstrom also does not teach this limitation. Accordingly, claims 2 and 23 are patentable over the combination of Sundar and Malmstrom for this additional reason.

Claims 9, 10, 27, and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sundar and Malmstrom and further in view of U.S. Patent No. 5,260,988 to Schellinger et al. (hereinafter “Schellinger”). Applicant respectfully traverses. The standards for obviousness are set forth above.

Claims 9 and 10 depend from claim 1 and include all of the limitations of claim 1. Claims 27 and 28 depend from claim 22 and include all of the limitations of claim 22. Claims 9, 10, 27, and 28 are thus patentable for the same reasons set forth above with respect to claims 1 and 22. In particular, the combination of Sundar and Malmstrom fails to teach or suggest initiating a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal**, as recited in claims 1 and 22. Schellinger fails to cure the deficiencies of Sundar and Malmstrom in this regard. Thus, claims 9, 10, 27, and 28 are patentable over the combination of Sundar, Malmstrom, and Schellinger.

Claims 17 and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sundar in view of Malmstrom and further in view of U.S. Patent Application Publication No. 2004/0132485 A1 to Charney et al. (hereinafter “Charney”). Applicant respectfully traverses. The standards for obviousness are set forth above.

Claim 17 depends from claim 1 and includes all of the limitations of claim 1. Claim 35 depends from claim 22 and includes all of the limitations of claim 22. Claims 17 and 35 are thus patentable for the same reasons set forth above with respect to claims 1 and 22. In particular, the combination of Sundar and Malmstrom fails to teach or suggest initiating a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal**, as recited in claims 1 and 22. Charney fails to cure the deficiencies of Sundar and Malmstrom in this regard. Thus, claims 17 and 35 are patentable over the combination of Sundar, Malmstrom, and Charney.

Claims 20 and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sundar and Malmstrom and further in view of U.S. Patent Application Publication No. 2002/0061744 A1 to Hamalainen et al. (hereinafter “Hamalainen”). Applicant respectfully traverses. The standards for obviousness are set forth above.

Claim 20 depends from claim 1 and includes all of the limitations of claim 1. Claim 38 depends from claim 22 and includes all of the limitations of claim 22. Claims 20 and 38 are thus patentable for the same reasons set forth above with respect to claims 1 and 22. In particular, the combination of Sundar and Malmstrom fails to teach or suggest initiating a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal**, as recited in claims 1 and 22. Hamalainen fails to cure the deficiencies of Sundar and Malmstrom in this regard. Thus, claims 20 and 38 are patentable over the combination of Sundar, Malmstrom, and Hamalainen.

Claims 41 and 42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sundar and Malmstrom and further in view of U.S. Patent No. 5,579,375 to Ginter et al. (hereinafter “Ginter”). Applicant respectfully traverses. The standards for obviousness are set forth above.

Claim 41 depends from claim 1 and includes all of the limitations of claim 1. Claim 42 depends from claim 22 and includes all of the limitations of claim 22. Claims 41 and 42 are thus patentable for the same reasons set forth above with respect to claims 1 and 22. In particular, the combination of Sundar and Malmstrom fails to teach or suggest initiating a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface to the first call being connected to the mobile terminal through the cellular wireless network using a temporary directory number **provided by a visited wireless switch currently providing cellular wireless access for the mobile terminal**, as recited in claims 1 and 22. Ginter fails to cure the deficiencies of Sundar and Malmstrom in this regard. Thus, claims 41 and 42 are patentable over the combination of Sundar, Malmstrom, and Ginter.

The present application is now in condition for allowance and such action is respectfully requested. The Examiner is encouraged to contact Applicant’s representative regarding any remaining issues in an effort to expedite allowance and issuance of the present application.

Respectfully submitted,

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